

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-10 are pending in the present application. Claims 2 and 6 are amended by the present amendment.

In the outstanding Office Action, Claim 6 was rejected under 35 U.S.C. § 112, second paragraph; Claim 2 was objected to; Claims 1, 6, 7, and 10 were rejected under 35 U.S.C. § 102(b) as anticipated by Sato et al. (U.S. Patent Application Publication No. 2001/0050270, herein "Sato"); Claims 1-4 and 6 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hoffman et al. (U.S. Patent No. 4,749,362, herein "Hoffman") in view of Kelin et al. (SU 856048, herein "Kelin"); Claims 7 and 8 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hoffman in view of Kelin and Lodini (U.S. Patent No. 4,977,386); Claim 9 was rejected under 35 U.S.C. § 103(a) as unpatentable over Hoffman, Kelin, Lodini, and Nakamura (JP 41027369); Claim 10 was rejected under 35 U.S.C. § 103(a) as unpatentable over Hoffman, Kelin, and Masuda (U.S. Patent No. 3,705,324); Claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as unpatentable over Sato in view of Johansen et al. (U.S. Patent No. 5,812,357, herein "Johansen"); and Claim 5 was indicated as allowable if rewritten in independent form.

Applicant thanks the Examiner for the indication of allowable subject matter. However, in view of the enclosed arguments, Claim 5 is maintained in dependent form.

Regarding the rejection of Claim 6 under 35 U.S.C. § 112, second paragraph, this claim has been amended as suggested by the outstanding Office Action. No new matter has been added. Accordingly, it is respectfully requested this rejection be withdrawn.

Regarding the objection to Claim 2, Claim 2 has been amended to depend from independent Claim 1. No new matter has been added. Accordingly, it is respectfully requested this objection be withdrawn.

The rejections of the claims on the merits are respectfully traversed for the following reasons.

Briefly recapitulating, independent Claim 1 is directed to a device for the dissipation of electricity from an object. The device includes at least one highly conductive contacting means to be applied in contact with an object and to be connected to a dissipation point capable of dissipating electric current. The device also includes a low conductive material for slow dissipation of the current from the object. The claim recites that for achieving the safe dissipation of static electricity from the object, the contacting means is connected to the dissipation point via the low conductive material such that when the conducting means is applied to the object, the current is first dissipated from the object over to the highly conductive contacting means, then through the low conductive material, and finally to the dissipating point, such that the formation of sparks is avoided.

In a non-limiting example, Figure 2 shows the device 200 having the at least one highly conductive contacting means 202a and the low conductive material 210. In this regard, the specification discloses on page 1, lines 9-20, that when handling explosive materials and products in environments with inflammable gases, the production of electric sparks poses a potential risk of explosion and/or fire. The specification also discloses on page 3, lines 27-30, that the claimed device solves this problem by avoiding the formation of sparks. Therefore, the claimed device advantageously prevents the appearance of sparks when objects are handled with the claimed device.

Turning to the applied art, Sato discloses an apparatus for machining a workpiece by means of electrical discharge over a working gap. In this regard, Sato shows in Figure 1, an electrode 14 that includes a layered anisotropically conductive element 11, a resistant element 12, and a feed element 13. The electrode 14 is facing a workpiece 15 as shown in Figures 2 and 3. As specifically disclosed by Sato in paragraph [0042], "[w]hen a voltage is applied between the electrode **14** and a work **15**, each capacitor is charged, then **discharge is generated at a working gap**" (emphasis added).

Therefore, Sato specifically discloses a device that uses an electrode 14 to handle an object 15 and to electrically discharge the electrode 14 and the object 15 by a spark, which is contrary to the device of Claim 1 in which a spark is avoided by slowly discharging electric charges from the object via the device.

In addition, Applicant respectfully submits that the outstanding Office Action identifies feed 13 of Sato as corresponding to the claimed high conductive contacting means. However, Figures 2 and 3 of Sato clearly show that feed 13 does not contact work 15, and thus, cannot correspond to the claimed **contacting** means.

Accordingly, it is respectfully submitted that independent Claim 1 and each of the claims depending therefrom patentably distinguish over Sato.

The outstanding Office Action also relies on the combination of Hoffman and Kelin to state that the device of Claim 1 is obvious. Applicant respectfully disagrees with this statement for the following reasons.

Hoffman is directed to a connector clip 6, as shown in Figure 1, that is used for testing a dual in-line packaged integrated circuit (IC) 2. In order to prevent a possible short circuit of various terminals 4 of the IC 2, the connector clip 6 includes resistances 14a-p placed between lead 12 (that supplies a testing voltage) and connecting points 8a-p, which connect to terminals 4.

Thus, in the set up of Hoffman shown in Figures 1 and 2, a voltage is generated by a source (not shown) and supplied via leads 12, resistances 14a-p and connector elements 8a-p of the connector clip 6, to the terminals 4 of the IC 2.

Therefore, no electric current is dissipated from the IC 2 to clip 6, but to the contrary, a current is supplied from clip 6 to the IC 2, which is different from the claimed device. In other words, the direction of the current in the claimed device and the direction of the current in the device of Hoffman are opposite.

In addition, Hoffman is not concerned with discharging statically charged objects as Hoffman applies small voltages of five or ten volts (see column 4, lines 34-39 of Hoffman), which are unlikely to produce any spark. Thus, there is no need to modify the device of Hoffman for adding the capability to prevent the formation of sparks, as suggested by the outstanding Office Action.

The outstanding Office Action considers on page 5, lines 4-5, that Hoffman "does not disclose use of the device for dissipation of a charge from an object." To cure only this deficiency, the outstanding Office Action relies on Kelin for disclosing such usage.

However, it is noted that the device of Kelin shown in the figure dissipates an accumulated electric energy from a conductor 7, which feeds current in a high voltage application. This is different from (i) statically charged objects in explosive environments where small and unpredictable discharges may occur with disastrous results, which is addressed by the device of the claims, or from (ii) testing integrated circuits by applying low voltages, which are unlikely to produce an electric spark.

In addition, when applying the method of Kelin (see discussion about Kelin in the originally filed application at page 3, lines 14-19), a spark will indeed occur when using the device because Kelin states that "the rod is brought into contact whereby **the spark appears** with the current limited by semi-conductor rod (3)" (emphasis added). It is noted in this regard that the outstanding Office Action relies on a Russian patent (Kelin) without providing an English translation.

Therefore, Kelin does not prevent a spark to appear, but actually states that a spark will appear during the normal usage of the device, which is contrary to the claimed device as discussed above with regard to Hoffman.

Further, it is not clear why one of ordinary skill in the art would combine the two references because Hoffman is directed to protecting the terminals of a chip from a short circuit produced by an applied 5 or 10 V, in which sparks are difficult to be produced, while Kelin is concerned with high voltage applications, in which sparks are commonly generated.

Furthermore, the English translation of the paragraph of Kelin noted above is contrary to the statement of the outstanding Office Action, in the last eight lines of the paragraph bridging pages 5 and 6, in which it is assumed that Kelin demonstrates a necessity for allowing a dissipation of a charge current.

Accordingly, it is respectfully submitted that independent Claim 1 and each of the claims depending therefrom patentably distinguish over Hoffman and Kelin, either alone or in combination.

The remaining applied art has been considered but none of the applied art cures the deficiencies of Hoffman and Kelin, discussed above with regard to Claim 1. Accordingly, it is respectfully submitted that the dependent claims also patentably distinguish over the applied art.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,
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